

# CLAIMS

We Claim:

5           1.     A method for graphically creating a Web query by selecting at least one object displayed in a Web page comprising a plurality of objects and importing the selected object into an electronic file open in an application program, comprising:

                  receiving a user command to import at least one object displayed in  
10   the Web page;

                  opening a Web Query dialog box in the application program in response to receiving the user command to import the selected object;

                  loading the Web page into the Web Query dialog box;

                  selecting at least one object in Web page displayed in the Web  
15   Query dialog box; and

                  importing the selected object into the application program as a Web Query.

20           2.     The method of Claim 1, wherein loading the Web page into the Web Query dialog box, comprises:

                  associating an entire page icon with the Web page;

                  scanning the Web page to determine the number of objects contained in the Web page;

                  for each object contained in the Web page, performing the  
25   sequence, comprising:

                  (A) associating an icon comprising a first visual attribute with each object;

                  (B) calculating the absolute position of the object within the Web page; and

30               (C) positioning the icon proximate to the absolute position and setting an index number associated with the icon to a maximum value.

35           3.     The method of Claim 2, further comprising:  
                  determining whether the dimensions of the object are greater than a predetermined value;

                  if the determination is made that the dimensions are greater than the predetermined value then performing steps (A)-(C); and

if the determination is made that the dimensions are less than the predetermined value then skipping steps (A)-(C).

4. The method of Claim 2, wherein the plurality of objects are in a parent-child relationship and wherein receiving a second user command, comprises:

retrieving a relative position value associated with the selected object; and

adding the relative positions of every object that has a parent-child relationship with the selected object to achieve an absolute position of the selected object.

5. The method of Claim 2, wherein the object comprises a background attribute comprising an original color.

6. The method of Claim 5, wherein receiving a second user command, comprises:

determining whether the user has positioned a cursor over one of the icons associated with the selected object;

if the determination is made that the cursor is positioned over one of the icons, associated with the selected object performing a second sequence comprising:

changing the value of the visual attribute of the icon associated with the selected object to a second value; and

drawing a box comprising a border attribute having a first value and a background attribute having a second value around the selected object;

determining whether the user has selected the object to import to the application program;

if the determination is made that the user has selected the object, performing a third sequence comprising:

changing the second value of the visual attribute of the icon to a third value; and

changing the background attribute of the selected object from its original color to a blend of a system color and white.

7. The method of Claim 2, further comprising:

determining whether the Web page contains more than one frame;

if the determination is made that the Web page contains more than one frame, then repeating steps (A)-(C) for each frame in the Web page.

5       8.     The method of Claim 1, wherein the object comprises tabular data.

9.     The method of Claim 9, wherein the tabular data is in a data format selected from the list consisting essentially of TABLE, PRE, XMP, LISTING, and PLAINTEXT.

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10.    The method of Claim 3, wherein the predefined value comprises 8 pixels.

11.    The method of Claim 6, wherein the box further comprises a transparent GIF-formatted image.

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12.    The method of Claim 1, wherein the application program is a spreadsheet program.

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13. A computer readable medium having computer-executable data instructions for graphically creating a Web query by importing an object displayed in an HTML document into an electronic file open in an application program, comprising:

- 5 receiving a user command to import the object;
- opening a Web query dialog box within the application program;
- hosting an Internet application module within the Web query dialog box;
- performing a first sequence upon the completion of loading a Web
- 10 page comprising the HTML document in the Internet application module, comprising:
  - identifying each instance of tabular data in the HTML document;
  - for each instance of tabular data identified, generating an icon
  - 15 and associating the icon with the identified tabular data; and
  - displaying the icon proximate to each instance of identified tabular data;
  - determining whether the user has selected at least one icon;
  - in response to determining that the user has selected at least one
  - 20 icon, importing the tabular data associated with the icon into the application program.

14. The computer readable medium of Claim 13, wherein displaying the icon proximate to the tabular data comprises:

- 25 retrieving a value that represents a relative position of a portion of the tabular data in the Web page;
- calculating an absolute position of the tabular data in the Web page by adding the value to a position of a parent object contained in the Web page;
- and
- 30 positioning the icon into the Web page within a predefined value from the portion of the tabular data.

15. The computer readable medium of Claim 14, wherein the portion of the tabular data comprises the upper left corner.

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16. The computer readable medium of Claim 14, wherein the predefined value comprises eight pixels.

17. The computer readable medium of Claim 13, further comprising:

determining whether the horizontal and vertical dimensions of each instance of tabular data are greater than a predefined value.

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18. A method of creating a Web query in a spreadsheet application program by copying a tabular data objects from a first electronic file open in an Web browser program to a second electronic file open in the spreadsheet application program, comprising the steps of:

- 5           opening the first electronic file in the Web browser program;
- selecting the tabular data object to be copied to the second electronic file;
- pasting the tabular data object from the first electronic file to the second electronic file open in the spreadsheet application program;
- 10          determining whether a first computer command should be displayed;
- in response to determining that the first computer command should be displayed, inserting the first computer command in a drop-down menu associated with the spreadsheet application program;
- 15          selecting the first computer command;
- launching the Web browser program containing the first electronic file in a Web query dialog box open in the spreadsheet program;
- selecting the tabular data object from the Web browser program to create the Web query.

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19. The method of Claim 18, wherein the step of determining whether the first computer command should be displayed comprises:

- determining whether the Web browser program supports a first format;
- 25          if the determination is that the Web browser program supports a first format, then
- determining whether a first identifier tag associated with the tabular data object has been set to a first value;
- if the identifier tag is set to the first value, performing a
- 30          second sequence comprising:
  - retrieving a URL associated with the tabular data object; and
  - determining whether the URL contains a second identifying tag.

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20. The method of Claim 19, wherein the first computer command is a Create Refreshable Web Query command.

21. The method of Claim 19, wherein the first identifier tag is a META tag identifying the application program that the plurality of data was selected from.

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22. The method of Claim 19, wherein the second identifier tag is selected from the group consisting essentially of http://, https://, ftp://, and file://.

23. The method of Claim 19, wherein the first format comprises a CF\_HTML format.

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24. The method of Claim 19, wherein the plurality of data comprises tabular data.

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25. The method of Claim 18, further comprises:

determining whether a redirection identifier tag is associated with the tabular data object in the first electronic file;

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associating the redirection identifier tag with the tabular data object pasted in the second electronic file, if the redirection identifier tag is associated with the tabular data object in the first electronic file;

determining whether a tabular data object identifier is associated with the tabular data object in the second electronic file, if the redirection identifier tag is not associated with the tabular data;

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associating the tabular data object identifier with the tabular data object in the second electronic file, if the tabular data object identifier is associated with the tabular data object in the first electronic file;

associating a numerical identifier with the tabular data object in the second electronic file, wherein the numerical identifier indicates the position of the tabular data object in the first electronic file; and

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associating the first electronic file with the tabular data object in the second electronic file, if the numerical identifier is not associated with the tabular data in the first electronic file.

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26. A computer readable medium having computer-executable instructions for creating a Web query by copying a plurality data objects from a first electronic file open in a Web browser program to a second electronic file open in a spreadsheet program, comprising:

5           opening the first electronic file in the Web browser program program;

          receiving a selection of the plurality of data objects to be copied to the second electronic file;

          receiving a user command to copy the plurality of data from the first  
10       electronic file to the second electronic file open in the second application program;

          upon receiving the user command to copy the plurality of data, performing a first sequence comprising:

          determining whether the plurality of data comprises a first format;

15       upon determining that the plurality of data comprises the first format,

          determining whether an identifier tag associated with the plurality of data has been set to a first value;

          if the identifier tag is set to the first value, performing a  
20       second sequence comprising:

          retrieving a URL associated with the plurality of data;

          determining whether the URL contains a second identifying tag; and

          copying the plurality of data from the first electronic  
25       file to the second electronic file, if the URL contains the second identifying tag.

27. The method of Claim 26, wherein the first computer command is a Create Refreshable Web Query command.

30           28. The method of Claim 26, wherein the first identifier tag is a META tag identifying the application program that the plurality of data was selected from.

35           29. The method of Claim 26, wherein the second identifier tag is selected from the group consisting essentially of http://, https://, ftp://, and file://.

          30. The method of Claim 26 wherein the first format comprises a CF\_HTML format.



31. The method of Claim 26, wherein the plurality of data comprises tabular data.

32. A computer readable medium having computer-executable instructions for creating a Web query in a spreadsheet program directly from a Web browser application program using a context menu, comprising:

- displaying a Web page in the Web browser application program window;
- placing a pointing device within the Web browser application program window
- receiving a user command to activate the context menu in the Web browser application program;
- determining whether the pointing device is located over at least one of a predefined set of objects in the first electronic file;
- if the pointing device is not located over at least one of the predefined set of objects then do not display the context menu;
- if the pointing device is located over at least one of the predefined set of objects then performing a first sequence, comprising:
  - displaying a command button in the context menu;
  - determining whether the command button in the context menu was selected;
  - if the command button in the context menu was selected,
  - determining whether the pointing device is located over the tabular data;
  - if the pointing device is located over the tabular data, then performing a second sequence comprising:
    - launching the spreadsheet program;
    - creating a Web query in the spreadsheet program associated with the tabular data object in the Web page;
  - if the pointing device is not located over the tabular data object in the Web page, determining whether the pointing device is located over at least one of a predefined set of objects in the Web page;
  - if the pointing device is not located over at least one of the predefined objects, then performing a third sequence, comprising:
    - launching the spreadsheet program; and
    - opening a dialog box in the spreadsheet program, wherein the web browser application program is running within the dialog box so that the user may select a tabular data object to copy to the spreadsheet program.

33. The computer-readable medium of Claim 32, wherein the predefined objects are selected from the group consisting essentially of an image, a form control, a text selection, and an anchor.

5           34. The computer-readable medium of Claim 32, wherein the Web browser application program is the MICROSOFT INTERNET EXPLORER 5.0 browser application program and wherein in the spreadsheet application program is the MICROSOFT EXCEL 2002 spreadsheet application program.

10           35. The computer-readable medium of Claim 33, wherein the command button on the context menu is the Export to Microsoft Excel command button.

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36. A computer readable medium having computer-executable instructions for editing a tabular data object displayed in a Web page open in a Web browser program in a spreadsheet program, comprising:

- receiving a user command to edit the tabular data object  
5 displayed in the Web page;
- determining whether the Web page was created using the spreadsheet program;
- if the determination is made the Web page was created using the spreadsheet program, performing a first sequence comprising:
  - 10 launching the spreadsheet program; and
  - pasting the tabular data object to the spreadsheet program so that it may be edited;
- if the determination is made the Web page was not created using the spreadsheet program, performing a second sequence comprising:
  - 15 launching the spreadsheet program; and
  - opening a Web query dialog box in the spreadsheet program, wherein the Web query dialog box is loaded with the Web page displayed in the Web browser program;
  - receiving a user command selecting the tabular data to  
20 edit in the Web page displayed within the Web Query dialog box; and
  - pasting the tabular data object selected in the Web Query dialog box to the spreadsheet program so that it may be edited.

37. The computer-readable medium of Claim 36, wherein the  
25 Web browser program is the MICROSOFT INTERNET EXPLORER 5.0 browser program and wherein the spreadsheet program is the MICROSOFT EXCEL 2002 spreadsheet program.

38. The computer-readable medium of Claim 36, wherein the user  
30 command to edit the tabular data object displayed in the Web page is an "Edit with Microsoft Excel" command displayed on a drop-down Edit menu associated with the MICROSOFT INTERNET EXPLORER 5.0 browser program.